

REMARKS

It is respectfully requested that the amendments presented in the previous section be entered pursuant to the provisions of 37 C.F.R. §1.116(b); that this application be reconsidered in view of the above amendments and the following remarks and that all of the claims remaining in this application be allowed.

Claim Amendments

The amendments made herein are requested solely to expedite the prosecution of what is believed to be allowable subject matter. Applications specifically reserve the right to file one or more continuation/divisional applications directed to the subject matter therein.

Claim 27 has been amended to bring out the feature that the claimed compound is one having a binding affinity to VLA-4 characterized by an IC_{50} of 15 μ M or less, as determined using competitive binding assay. Support for this feature of the invention is provided, for example, in Example A of the specification, which exemplifies a standard type of competitive binding assay known in the art.

Claim 27 has also been amended to correct several typographical and formatting errors; all amendments are presented in boldface, to facilitate review:

In the description of the substituent R^{2a} , specifically sub-paragraph (i) thereof, wherein R^{2a} is (i) Ar^1R^9 , at S^1 (acylamino), the final paragraph has been numbered "(16)" to indicate a separate substituent,

Further in the description of the substituent R^{2a} , sub-paragraph (ii) thereof in the description of the group B, at (L^2), the term "- So_n -" has been corrected to "- SO_n -."

Also in the description of the group B, at (Q^2), the term "heteroayl" has been corrected to read "heteroaryl."

Also in the description of the substituent B, also in the description of heteroaryl at (Q^2), the terms "substituted heterocyclic" and substituted alkynyl groups," previously in paragraph (h), have been split into paragraphs (h) and (i), respectively to bring out the feature that these are, in fact, distinct substituents.

Further in the description of the group B, previous sub-paragraphs (R^2) to (H^3) have been re-numbered as (32)-(48) to indicate their proper hierarchy under sub-paragraph (Q^2). Support for this feature of the invention can be found, for example, in the specification at page 8 line 22 to page 9 line 13 thereof, as amended by way of the Amendment dated August 7, 2002.

In the description of group C, also under substituents R^{2a} , in sub-paragraph (U^3), the term “- SO_n ” has been corrected to read “ SO_n ”.

Further under the description of group C, sub-paragraph (Z^3) has been re-punctuated to bring out the delineation of the description of the bi or tri-fused ring system at the end of the description.

Claim 27 has been further amended to add descriptions of the substituents R^3 , R^{3a} , R^{16} , R^{18} and R^{20} , as shown in the structural depiction of Formula I. Support for these amendments can be found, for example in Claim 1 as originally presented. The various recited substituents have further been defined with reference to the descriptions throughout the specification, as previously amended into Claim 27. Applicants note that one additional definition has been incorporated into the description of the substituents “substituted amino” at sub-paragraph Q^5 of the description of R^{16} . Support for this definition is found, for example, in the specification, at page 39, lines 10-20 thereof.

Claim 27 has also been amended to correct a repeated typographical error in the descriptions of R^3 and R^{3a} . At sub-paragraph Y, the term “ R^d ” was inadvertently typed in lower case (r^d) in certain of the terms. This has been corrected at sub-sub-paragraphs (16), (19), (21), (23) and (24) thereof. This correction is newly added in the current review, in response to the Notice of Non-Compliant Amendment.

Claim 28 was amended to revert to the original numbering consistent with the amendment originally filed on January 16, 2003. It appears that applicants' attorney, in Appendix B of the later amendment dated May 3, 2004, inadvertently mis-numbered the claims by (i) deleting the numerical indicator on claim 28 and (ii) presenting duplicates of Claim 47 (as

claims 46 and 47). Applicants' undersigned attorney recognizes the prohibition against re-numbering claims, but respectfully submits that this submission is not, strictly speaking, a re-numbering, since (i) the amended form of the claims in the later amendment did not show the error (it was only in the "clean" version), and (ii) the Examiner apparently recognized the error and subsequently referred to the claims using the correct reference numbers. Nonetheless, for avoidance of doubt, applicants herein present the claims in "amended" form. This paragraph will be referred to below, with regard to amendments of the other claims affected by this discrepancy.

Claim 28 is further amended to remove redundant reference to Claim 27, on which it depends.

Claim 29 is amended to conform the numbering as described for Claim 28, above.

Claim 30 is amended to conform the numbering as described for Claim 28, above.

Claim 31 has been amended to correct the second subscript to $11'$ (from 11) in the term "-OC(O)NR¹¹R^{11'}". Claim 31 is further amended to conform the numbering as described for Claim 28, above.

Claim 32 is amended to conform the numbering as described for Claim 28, above.

Claim 33 is amended to conform the numbering as described for Claim 28, above.

Claim 34 is amended to conform the numbering as described for Claim 28, above.

Claim 35 is amended to conform the numbering as described for Claim 28, above.

Claim 36 is amended to conform the numbering as described for Claim 28, above.

Claim 37 is amended to conform the numbering as described for Claim 28, above.

Claim 38 has been amended to remove reference to R^2 and R^3 , which are not present in the formula of the claimed compound. Claim 38 is further amended to conform the numbering as described for Claim 28, above.

Claim 39 is amended to conform the numbering as described for Claim 28, above.

Claim 40 has been amended to remove the word “the” from the fourth line of the claim.
Claim 40 is further amended to conform the numbering as described for Claim 28, above.

Claim 41 has been amended to remove the word “preferably” from the language of the claim, in conformance with standard claiming practice. Claim 41 is further amended to conform the numbering as described for Claim 28, above.

Claim 42 is amended to conform the numbering as described for Claim 28, above.

Claim 43 is amended to conform the numbering as described for Claim 28, above.

Claim 44 is amended to conform the numbering as described for Claim 28, above.

Claim 45 is amended to conform the numbering as described for Claim 28, above.

Claim 46 is amended to conform the numbering as described for Claim 28, above.

Claim 53 has been amended to depend from Claim 27.

Claim 54 has been amended to recite specific VLA-4-mediated diseases.

Applicants submit that no new matter has been entered by the foregoing amendments to the claims.

SUMMARY

In summary, Claims 1-26 were previously canceled. Claims 27, 28-45, 53 and 54 are amended herein. Claims 52 and 56 stand canceled by this amendment. Accordingly, Claims 27-51 and 53-55 are currently pending in the application.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the outstanding rejection of the claims and to pass this application to issue.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 50-0872. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-0872. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-0872.

Respectfully submitted,

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By 

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